

FORMATION METHOD OF THIN FILM, SILICON THIN FILM AND FORMATION METHOD OF SILICON THIN-FILM TRANSISTOR

FORMATION METHOD OF THIN FILM, SILICON THIN FILM AND FORMATION METHOD OF SILICON THIN-FILM TRANSISTOR

Patent Number: JP5102189
Publication date: 1993-04-23
Inventor(s): MATSUMOTO TOMOTAKA; others: 08
Applicant(s): FUJITSU LTD
Requested Patent: ☐ JP5102189
Application Number: JP19920023986 19920210
Priority Number(s):
IPC Classification: H01L21/336; H01L29/784; C23C14/26; C30B25/14; H01L21/205
EC Classification:
EC Classification:
Equivalents: JP2828152B2

Abstract

PURPOSE: To obtain a silicon thin film whose crystallinity at a low temperature is good by a method wherein a binary material film is grown on a substrate and, in succession, the silicon film is grown on the binary material film by an atomic-layer deposition method wherein the substrate is exposed alternately to two atmospheres which separately contain individual atoms constituting a binary material.

CONSTITUTION: By using an atomic-layer deposition method wherein a substrate 1 is exposed alternately to two atmospheres which contain individual atoms constituting a binary material, a binary material film 2 is grown on the substrate 1, and, in succession, a silicon film 3 is grown on the binary material film 2. Thereby, it is possible to obtain the silicon film whose crystallinity is good.